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**JS Day3 – More Tasks**

**Task 1**

Create a function named calculateArea that takes the radius of a circle as a parameter and returns the area of the circle. Use the formula: area = π \* radius^2.

**Sample Input and Output:**

* calculateArea(5)  
  Output: 78.53981633974483
* calculateArea(10)  
  Output: 314.1592653589793

**Task 2**

Create a function expression that takes a string and returns the string reversed. Assign this function to a variable named reverseString.

**Sample Input and Output:**

* reverseString('hello')  
  Output: 'olleh'
* reverseString('world')  
  Output: 'dlrow'

**Task 3**

Create an arrow function named filterEvenNumbers that takes an array of numbers and returns a new array containing only the even numbers.

**Sample Input and Output:**

* filterEvenNumbers([1, 2, 3, 4, 5, 6])  
  Output: [2, 4, 6]
* filterEvenNumbers([11, 22, 33, 44, 55])  
  Output: [22, 44]

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**Task 4**

Create an object named library with properties books (an array of book objects) and addBook (a method to add a new book to the library). Each book should have properties title and author.

**Sample Input and Output:**

* library.addBook({ title: '1984', author: 'George Orwell' })  
  library.addBook({ title: 'To Kill a Mockingbird', author: 'Harper Lee' })  
  Output:

[{ title: '1984', author: 'George Orwell' },

{ title: 'To Kill a Mockingbird', author: 'Harper Lee' }]

**Task 5**

Create an array named numbers with at least 10 numbers. Write a function that returns the sum of all the numbers in the array.

**Sample Input and Output:**

* sumArray([1, 2, 3, 4, 5, 6, 7, 8, 9, 10])  
  Output: 55

**Task 6**

Write a function that takes a string and returns the number of vowels in the string.

**Sample Input and Output:**

* countVowels('hello')  
  Output: 2
* countVowels('javascript')  
  Output: 3

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**Task 7**

Write a function that takes a string and capitalizes the first letter of each word.

**Sample Input and Output:**

* capitalizeWords('hello world')  
  Output: 'Hello World'
* capitalizeWords('javascript is fun')  
  Output: 'JavaScript Is Fun'

**Task 8**

Write a function that takes a string containing a sentence and returns an array of words in the sentence in reverse order.

**Sample Input and Output:**

* reverseWords('Hello World')  
  Output: ['World', 'Hello']
* reverseWords('JavaScript is fun')  
  Output: ['fun', 'is', 'JavaScript']